PATENT ABSTRACTS OF JAPAN

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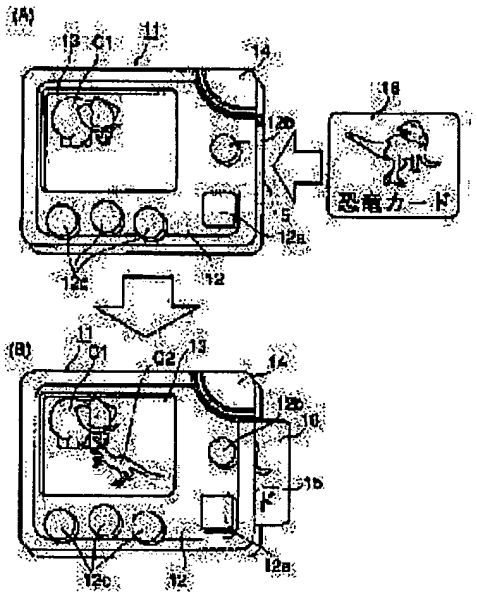
(71)Applicant : CASIO COMPUT CO LTD
(72)Inventor : TAKAGI RENKICHI

(54) ELECTRONIC DEVICE

(57)Abstract:
PROBLEM TO BE SOLVED: To release an unreadable state of a prestored character data with the simple operation without executing the communication acesss with a center device and the like in an electronic device such as an electronic game device and the like capable of displaying and operating the image of characters.
SOLUTION: The images of plural kinds of characters are respectively corresponded to the character codes and stored in a character memory in a device body 11, and a character card 16 on which the character code of different kind is recorded for every card, is inserted from a card inserting portion 15 in a condition that some of characters are set in an unreadable and undisplayable state by a flag, and only the character on which the undisplayability releasing flag '1' is set, is read out and displayed on a display portion 13, whereby the undisplayability release flag is set to the character in the memory corresponding to the code read out from the card 16, and the character in the undisplayable state, can be newly set in a displayable state.



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[Date of final disposal for application]

[Patent number]

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CLAIMS

[Claim(s)]
[Claim 1] A character storage means to memorize two or more characters, and a display improper setting-out means to set it as the condition which cannot display that character corresponding to each of two or more characters memorized by this character storage means, Two or more cards with which the information which shows one of said two or more of the characters for every card was written in, A card reading means to read the information which shows the character written in said card, A display improper discharge means to cancel the condition which is set up by said display improper setting-out means corresponding to the character of the card read by this card reading means and which cannot be displayed, The electronic instrument characterized by having a character display means to read the character of which the condition which cannot be displayed with this display improper discharge means was canceled from said character storage means, and to display it.
[Claim 2] A character storage means to memorize two or more characters, and a display improper setting-out means to set it as the condition which cannot display that character corresponding to each of two or more characters memorized by this character storage means, Two or more cards with which the information which shows one of said two or more of the characters for every card, and its card use count were written in, A card reading means to read the information and the card use count which show the character written in said card, A display improper discharge means to cancel the condition which is set up by said display improper setting-out means corresponding to the character of the card read by this card reading means and which cannot be displayed, A character display means to read the character of which the condition which cannot be displayed with this display improper discharge means was canceled from said character storage means, and to display it, The electronic instrument characterized by having a character limit means to add a limit to the character of which the condition which cannot be displayed with said display improper discharge means was canceled according to the use count of the card read by said card reading means.
[Claim 3] Said character limit means is an electronic instrument according to claim 2 characterized by the thing which sets the length of the discharge as the character of which the condition which cannot be displayed with said display improper discharge means was canceled according to the use count of the card read by said card reading means, and which it is a character limit means.
[Claim 4] It is the electronic instrument according to claim 2 characterized by what is been a character limit means restrict the power for the battle games of the character of which it is the electronic instrument equipped with the function to perform a battle game in characters, and the condition which cannot be displayed with said display improper discharge means was canceled according to the use count of the card in which said character limit means was read by said card reading means.
[Claim 5] Furthermore, an electronic instrument given in any 1 term of claim 2 characterized by having a display improper resetting means to set the character of which the condition which cannot be displayed with said display improper discharge means was canceled as the condition which cannot be displayed again when the use count of the card read by said card reading means is more than a count of predetermined thru/or claim 4.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to electronic instruments, such as electronic game equipment which displays the character memorized as image data and operates.
[0002]
[Description of the Prior Art] In conventional electronic game equipment, the character of a living thing is made to memorize as image data to ROM, and there are some which are made to display this memorized character on the display screen, and were made to perform a game etc.
[0003] And when two or more characters are made to memorize beforehand, read two or more characters of all memorized by ROM from the beginning of using of equipment, and an indication is not given possible. It is accessing with the providing agency server of the game equipment concerned by the means of communications which reads about some characters, sets it as the condition which cannot be displayed (it hides and a character's is called), and minded the telephone etc. Said game system of which it hides and the read-out improper condition of a character was canceled gradually is considered.
[0004] That is, if it accesses with the providing agency server of game equipment and sees from a user by said thing [hiding and canceling the read-out improper condition of a character gradually], a character new at every telecommunications access of the comes to be given from this communication link place, and he is trying to increase the fun of a game more.
[0005]
[Problem(s) to be Solved by the Invention] However, the read-out improper condition of two or more characters beforehand memorized by ROM like said conventional electronic game equipment By having made it a telecommunications access with the game offer former server which minded means of communications one by one cancel gradually The modem for connecting with the telephone line at a user side is not only needed, but it must also pay communication link costs and there is a problem which cannot be used as lighthearted and easy game equipment.
[0006] Moreover, plant-and-equipment investment and administrative and maintenance expenses of communication system are needed for the offer origin of game equipment, and there is a problem which cannot offer easy and interesting game equipment by low cost.
[0007] without having been made in view of the above problems and requiring a telecommunications access with center equipment etc., the character data memorized beforehand carries out reading appearance of this invention, and it aims at offering the electronic instrument which enables it to cancel and display an improper condition by easy actuation.
[0008]
[Means for Solving the Problem] Namely, the electronic instrument concerning claim 1 of this invention A character storage means to memorize two or more characters, and a display improper setting-out means to set it as the condition which cannot display that character corresponding to each of two or more characters memorized by this character storage means, Two or more cards with which the information which shows one of said two or more of the characters for every card was written in, A card reading means to read the information which shows the character written in said card, A display improper discharge means to cancel the condition which is set up by said display improper setting-out means corresponding to the character of the card read by this card reading means and which cannot be displayed, It is characterized by having a character display means to read the character of which the condition which cannot be displayed with this display improper discharge means was canceled from said character storage means, and to display it.
[0009] If the information which shows one of two or more of the characters written in the card with the electronic instrument concerning such a claim 1 is read with a card reading means Corresponding to the

character of the read card, the condition which is set up by the display improper setting-out means and which cannot be displayed is canceled. Since reading appearance of the character of which the condition in which the display is impossible was canceled is carried out and it is displayed from a character storage means by which two or more characters are memorized Only by [of the card which has the information on a desired character] reading and making ** perform, a display improper condition will be canceled simply and it will indicate by the character.

[0010]

[Embodiment of the Invention] A drawing explains the gestalt of operation of this invention below.

[0011] Drawing 1 is drawing showing the appearance configuration of the electronic game equipment concerning the operation gestalt of the electronic instrument of this invention, this drawing (A) is an external view in front of character card insertion, and this drawing (B) is an external view after character card insertion.

[0012] It comes to hold the body 11 of equipment of this electronic game equipment in a square case by small [of the size which a user can grasp easily single hand], and the key section 12 and the liquid crystal display section 13 are formed in the transverse plane of this body 11 of equipment, and the infrared communications department 14 for performing the external electronic game equipment and the data communication of this specification is established in an upper right corner.

[0013] Cursor key 12c for performing the cursor on battle carbon button 12b for performing the battle game of the characters which minded said infrared communications department 14 between the electronic game equipment of the ON / off key 12a for performing ON/OFF of a power source, and this external specification, and a display screen or migration actuation of a character, and data selection actuation is prepared in said key section 12.

[0014] Furthermore, the card insertion section 15 is formed in the right lateral of the body 11 of equipment of electronic game equipment, and the character card 16 for canceling the read-out improper condition of the animal character beforehand memorized as image data within the body 11 of equipment is inserted in it at this card insertion section 15. This character card 16 is prepared as an option in the body 11 of equipment of electronic game equipment, and every one character used as the object for discharge which cannot be read is prepared for every kind.

[0015] For example, as shown in drawing 1 (A), where the character C1 of the mammoth which is beforehand set as the condition which can be read and is memorized by the internal memory is displayed on the liquid crystal display section 13 If the character card 16 of tee llano Zaurus is inserted in the card insertion section 15 as shown in drawing 1 (B) The read-out improper condition of the character C2 of tee llano Zaurus which is beforehand set as a read-out improper condition by said internal memory, and is memorized will be canceled, and it can display on the liquid crystal display section 13.

[0016] Drawing 2 is the block diagram showing the configuration of the electronic circuitry of said electronic game equipment.

[0017] The electronic circuitry of this electronic game equipment is equipped with CPU (control section)21.

[0018] This CPU21 makes ROM22 start the system program memorized beforehand according to the received data from an external device inputted from the user manipulate signal inputted from the key section 12, or the infrared communications department 14, and the card data based on the character card 16 further inputted from the card insertion section 15, and controls actuation of each part of a circuit by using RAM23 as work-piece memory.

[0019] Said key section 12, the liquid crystal display section 13, the infrared communications department 14, the card insertion section 15, and ROM22 and RAM23 are connected to said CPU (control section)21 through a system and a data bus, respectively.

[0020] Drawing 3 is drawing showing the configuration of the data memory secured to RAM23 of the electronic circuitry of said electronic game equipment.

[0021] This RAM23 is equipped with the work-piece memory the various data outputted and inputted by current time memory 23a, character data memory 23b, card data memory 23c, and character limit table 23d and battle data memory 23e and said other CPUs (control section)21 are remembered to be if needed.

[0022] The current date and the time-of-day data which are clocked based on the time count from the timer circuit built in CPU (control section)21 are serially updated by said current time memory 23a, and are memorized.

[0023] Drawing 4 is drawing showing the content of data storage of character data memory 23b with which RAM23 of said electronic game equipment is equipped.

[0024] In this character data memory 23b, for example, the flag which shows good/failure of the read-out display of the image data for a display of 50 kinds of characters for every character, With the length data in the condition which can be displayed, and the power data for battle games It is matched with the code (character

code) of each character proper, and memorizes, and it reads by "0" and is set up improper, and "1" reads said flag as the discharge flag, and it is set up good.
[0025] Moreover, the activity time data in which the insertion use count to the character code which shows the class of character read into said card data memory 23c from the character card 16 inserted in the card insertion section 16, and the electronic game equipment of the card concerned is shown are memorized.
[0026] Drawing 5 is drawing showing the character limit table 23d table data with which RAM23 of said electronic game equipment is equipped.
[0027] This character limit table 23d, the corresponding character by the insertion activity of said character card 16 carries out reading appearance, and discharge of an improper condition is faced. It is a thing in order to restrict the length which can be displayed and battle power by which setting-out storage is carried out in said character data memory 23b according to the insertion use count of the character card 16 concerned. For example, when the insertion use count of the character card 16 is the 1st time, there is no limit in the length which can be displayed and battle power of character data, and an insertion use count is gradually restricted for the length which can be displayed, and battle power to them greatly to 2 - 4 times.
[0028] And when the insertion use count of said character card 16 is 5 times or more, the corresponding discharge flag which character data cannot read is reset, and while read-out has been impossible, it is held.
[0029] Moreover, on the occasion of initiation of a character battle with the electronic game equipment of the exterior through the infrared communications department 14, the power data of the character for a battle by the side of the we equipment by which it was indicated by selection from said character data memory 23b, and the power data of the character for a battle by the side of partner equipment are memorized by said battle data memory 23e, and the victory or defeat of each character are determined as it by the size comparative judgment of the power data of these both sides.
[0030] Next, actuation of the electronic game equipment by said configuration is explained.
[0031] Drawing 6 is a flow chart which shows said control processing by the whole electronic game equipment.
[0032] If the ON / off key 12a in the key section 12 succeed in actuation of power-source ON As the established state of the display improper discharge flag "1" for every character memorized by character data memory 23b in RAM23 is checked, for example, it is shown in drawing 1 (A) Reading appearance of the image data for a display of the character C1 of the mammoth to which the discharge flag "1" is set is carried out, and it is displayed on the liquid crystal display section 13 (steps S1, S2, and S3).
[0033] And decision processing of the insertion decision processing of the character card 16 to the card insertion section 15, decision processing of battle carbon button 12b in the key section 12, expiration decision processing of the length data which can be character displayed in which the discharge flag "1" in character data memory 23b is set up, and the power-source off actuation by the ON / off key 12a in the key section 12 is performed repeatedly (step S4-S7-> S3).
[0034] Here, if the character card 16 of tee llano Zaurus purchased as the option is inserted in the card insertion section 15 as shown in drawing 1 (B), the character code and insertion use count data which are recorded on this character card 16 will be read, and card data memory 23c in RAM23 will memorize (step S4-> S8).
[0035] Then, according to the character code read in said character card 16, "002", the display improper discharge flag "1" corresponding to the character data of tee llano Zaurus C2 is set (step S9). [for example,]
[0036] moreover, the activity time data read from said character card 16 -- the insertion use count of the character card 16 concerned -- the 1st time -- or the 2nd more than time the a number of time is judged (step S10).
[0037] and when it is judged that it is the 1st activity Character limit table 23d (refer to drawing 5) memorized in RAM23 is followed. Without restricting the corresponding length which can be displayed and the power data of character data The information on the count in the case of only carrying out an insertion activity next being the 2nd time is written in the character card 16 in the card insertion section 15. Reading appearance of the image data for a character display of tee llano Zaurus C2 to which said discharge flag "1" was set is carried out, and it is indicated by discharge at the liquid crystal display section 13 (step S10->S11-> S3).
[0038] On the other hand, when the insertion use count of the character card 16 concerned is judged to be the 2nd time with the activity time data read from said character card 16 Character limit table 23d (refer to drawing 5) memorized in RAM23 is followed. The length of the character data of tee llano Zaurus C2 corresponding to said reading character code "002" which can be displayed by character data memory 23b While being set on "March 10, 2000" which is the time 12 months after the current time by which reading appearance was carried out from current time memory 23a in RAM23 The power data for battles are changed and set to "75" restricted 50% from "150" set beforehand (step S10-> S12).
[0039] And the information on the count in the case of next carrying out an insertion activity being the 3rd time

is written in the character card 16 in the card insertion section 15, and reading appearance of the image data for a character display of tee llano Zaurus C2 to which said discharge flag "1" was set is carried out, and it is indicated by discharge at the liquid crystal display section 13 (step S11-> S3).

[0040] In moreover, the condition of reading appearance of the image data for a character display to which the display improper discharge flag "1" is set in character data memory 23b in said RAM23 being carried out, and being indicated by discharge at the liquid crystal display section 13 When it is judged that it reached in the length when the current time by which renewal of storage is carried out is set in current time memory 23a corresponding to said character data by which it is indicated by discharge and which can be displayed The display improper discharge flag "1" corresponding to the character data concerned is reset by "0", and is set as a display improper condition, and the character data by which it was indicated by discharge is no longer displayed on said liquid crystal display section 13 (step S6->S13-> S3).

[0041] Moreover, actuation of battle carbon button 12b in the key section 12 performs the battle game by the character data currently displayed on the mutual liquid crystal display section 13 between the electronic game equipment of this external specification through the infrared communications department 14 (step S5-> S14).

[0042] That is, while the power data corresponding to the character data which reading appearance is carried out from character data memory 23b in RAM23, and is displayed on the liquid crystal display section 13 are memorized by battle data memory 23e, the image data and its power data for this character display are transmitted to the other party's electronic game equipment through the infrared communications department 14. And the image data and its power data for the character display transmitted from the other party's electronic game equipment are incorporated, and while the character of the other party concerned counters with the character by the side of us who have already been displayed to the liquid crystal display section 13 and displayed, the size comparison of the other party's power data is carried out with the power data of the character data by the side of us who are memorized to said battle data memory 23e, and have already been memorized. And the winner display to a character with the larger value of power data is performed.

[0043] Moreover, if it is judged that the ON / off key 12a in the key section 12 succeeded in actuation of power-source OFF, said a series of control processings will be ended, and supply of a power source will be intercepted.

[0044] Drawing 7 is drawing showing the configuration of four kinds of usable character cards 16a-16d with said electronic game equipment, and drawing showing [this] memory card type character card 16a (A), drawing showing [this] magnetic-card type character card 16b (B), drawing showing [this] punch card type character card 16c (C), and this drawing (D) are drawings showing PCB card system character card 16d.

[0045] When memory card type character card 16a as shown in drawing 7 (A) is used, the character code which shows the class of character which is different according to the character card 16a concerned, respectively, and insertion use count data are memorized to the semiconductor memory 16a1 built in beforehand as n-bit digital data, and are connected through the data terminal 16a2 on the occasion of the insertion activity to the card insertion section 15 of the body 11 of equipment.

[0046] In this case, what is necessary is just to prepare the connection terminal which contacts electrically the data terminal 16a2 of said memory card type character card 16a in the card insertion section 15 of the body 11 of equipment.

[0047] When magnetic-card type character card 16b as shown in drawing 7 (B) is used, magnetic recording of the character code which shows the class of character which is different according to the character card 16b concerned, respectively, and the insertion use count data is carried out to the card 16b concerned as a n-bit magnetic code to the magnetic-recording band 16b1 really formed beforehand.

[0048] In this case, what is necessary is just to prepare the magnetic-recording playback device [read-out / a magnetic code / device / writing and read-out] in the card insertion section 15 of the body 11 of equipment to the magnetic-recording band 16b1 of said magnetic-card type character card 16b.

[0049] When punch card type character card 16c as shown in drawing 7 (C) is used, the character code which shows the class of character which is different according to the character card 16b concerned, respectively, and insertion use count data are recorded on the card 16b concerned with the array pattern of the punch hole 16c1 by which punching formation is carried out.

[0050] In this case, what is necessary is just to prepare the punch hole punching reader style in which punching of the punch hole 16c1 and array location reading are possible to said punch card type character card 16c in the card insertion section 15 of the body 11 of equipment.

[0051] When PCB card system character card 16d as shown in drawing 7 (D) is used, the character code which shows the class of character which is different according to the character card 16b concerned, respectively, and insertion use count data are recorded with the flow pattern in 16d 1 of print fields formed in the card 16d concerned.

[0052] In this case, what is necessary is just to prepare the PCB write-in reader style [reading / a PCB flow pattern / style / addition and reading] to said PCB card system character card 16d in the card insertion section 15 of the body 11 of equipment.
[0053] Therefore, while according to the electronic game equipment of said configuration matching the image data of two or more kinds of characters with the character code which shows the each and memorizing it in character data memory 23b of RAM23 built in the body 11 of equipment It is in the condition that only the character to which it reads about some characters, and is set as the condition which cannot be displayed with the flag, and the display improper discharge flag "1" was set is read and displayed on the liquid crystal display section 13. If the character card 16 with which the character code of a different class for every card is recorded is inserted in the card insertion section 15 A display improper discharge flag is set to the character in said character data memory 23b corresponding to the character code read in the inserted character card 16. since the character which suited the condition which cannot be displayed is newly set as the condition which can be displayed -- a telecommunications access with the providing agency server of this electronic game equipment etc. -- it is not necessary to carry out -- easy actuation and easy low cost -- a display -- the usable number of characters can be made to increase and it can be enjoyed now.
[0054] Moreover, according to the electronic game equipment of said configuration, said character card 16 is received. The insertion use count is recorded for every insertion activity to the card insertion section 15 of the body 11 of equipment. When the use count data serves as multiple times on the occasion of the insertion activity of this character card 16 While the setting-out length data (length which can be displayed) of the display improper discharge flag "1" of the character corresponding to a character code are set The reduction limit also of the power data for the battle games of the character concerned is carried out. Moreover Said length data are so short that there are many said use counts, and said power data are restricted small. Further above a use count predetermined time the case where carried out the time and it carries out using one character card 16 among two or more electronic game equipments since said display improper discharge flag "1" itself was reset and it was held in the display improper condition state -- the merit of the card activity -- reduction -- or it can be made for there to be nothing.
[0055] In addition, although the merit which depends for carrying out a card usage time by recording an insertion use count and adding a limit to the condition of the character by which display improper discharge is carried out at every insertion activity of said character card 16 with the body 11 of equipment considered as reduction or the configuration made for there to be nothing with said operation gestalt, it is good also as a configuration which writes in in a card invalid data promptly by one insertion activity, and prevents thoroughly in usage **** of this card 16.
[0056]
[Effect of the Invention] As mentioned above, if the information which shows one of two or more of the characters written in the card is read with a card reading means according to the electronic instrument concerning claim 1 of this invention Corresponding to the character of the read card, the condition which is set up by the display improper setting-out means and which cannot be displayed is canceled. Since reading appearance of the character of which the condition in which the display is impossible was canceled is carried out and it is displayed from a character storage means by which two or more characters are memorized Only by [of the card which has the information on a desired character] reading and making ** perform, a display improper condition is canceled simply and it comes indicate by the character.
[0057] Therefore, it becomes possible to cancel and display the read-out improper condition of the character data memorized beforehand by easy actuation, without requiring a telecommunications access with center equipment etc.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is drawing showing the appearance configuration of the electronic game equipment concerning the operation gestalt of the electronic instrument of this invention, and for this drawing (A), it is an external view in front of character card insertion, and this drawing (B) is an external view after character card insertion.
[Drawing 2] The block diagram showing the configuration of the electronic circuitry of said electronic game equipment.
[Drawing 3] Drawing showing the configuration of the data memory secured to RAM of the electronic circuitry of said electronic game equipment.
[Drawing 4] Drawing showing the content of data storage of the character data memory with which RAM of said electronic game equipment is equipped.
[Drawing 5] Drawing showing the table data of the character limit table with which RAM of said electronic game equipment is equipped.
[Drawing 6] The flow chart which shows said control processing by the whole electronic game equipment.
[Drawing 7] It is drawing in which being drawing showing the configuration of four kinds of usable character cards with said electronic game equipment, and showing [drawing showing / this / a memory card type character card (A), drawing showing / this / a magnetic-card type character card (B), drawing showing / this / a punch card type character card (C), and / this] a PCB card system character card (D).
[Description of Notations]
11 Body of -- Equipment,
12 -- Key Section,
12a -- ON / off key,
12b -- Battle carbon button,
12c -- Cursor key,
13 -- Liquid Crystal Display Section,
14 -- Infrared Communications Department,
15 -- Card Insertion Section,
16 -- Character Card,
16a -- Memory card type character card,
16a1 -- Semiconductor memory
16a2 -- Data terminal,
16b -- Magnetic-card type character card,
16b1 -- Magnetic-recording band,
16c -- Punch card type character card,
16c1 -- Punch hole,
16 d--PCB card system character card,
16d1 -- Print field,
C1, C2 -- Character,
21 -- CPU (Control Section),
22 --ROM,
23 --RAM,
23a -- Current time memory,
23b -- Character data memory,
23c -- Card data memory,
23d -- Character limit table,
23e -- Battle data memory.

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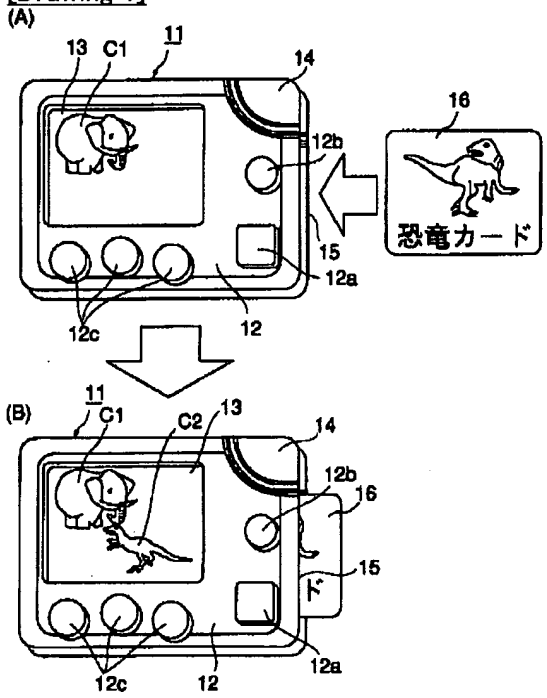
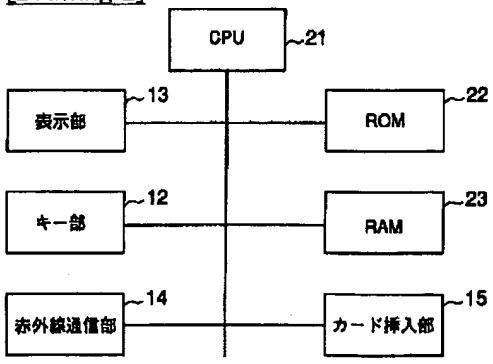
DRAWINGS

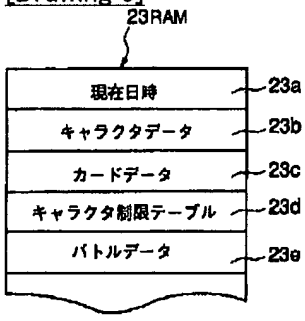
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Drawing 4]

23b (キャラクタデータメモリ)

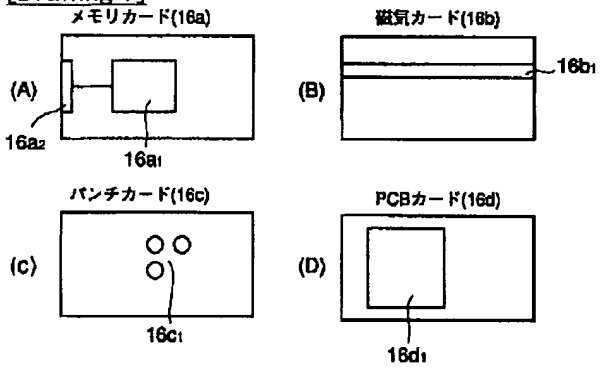
コード	解除フラグ	表示データ	期限データ	パワーデータ
001	1	マンモスのデータ	–	100
002	1	ティラノザウルスのデータ	2000.3.10	75(150)
003	0	ゴリラのデータ	–	90
⋮	⋮	⋮	⋮	⋮
050	0	パンダのデータ	–	60

[Drawing 5]

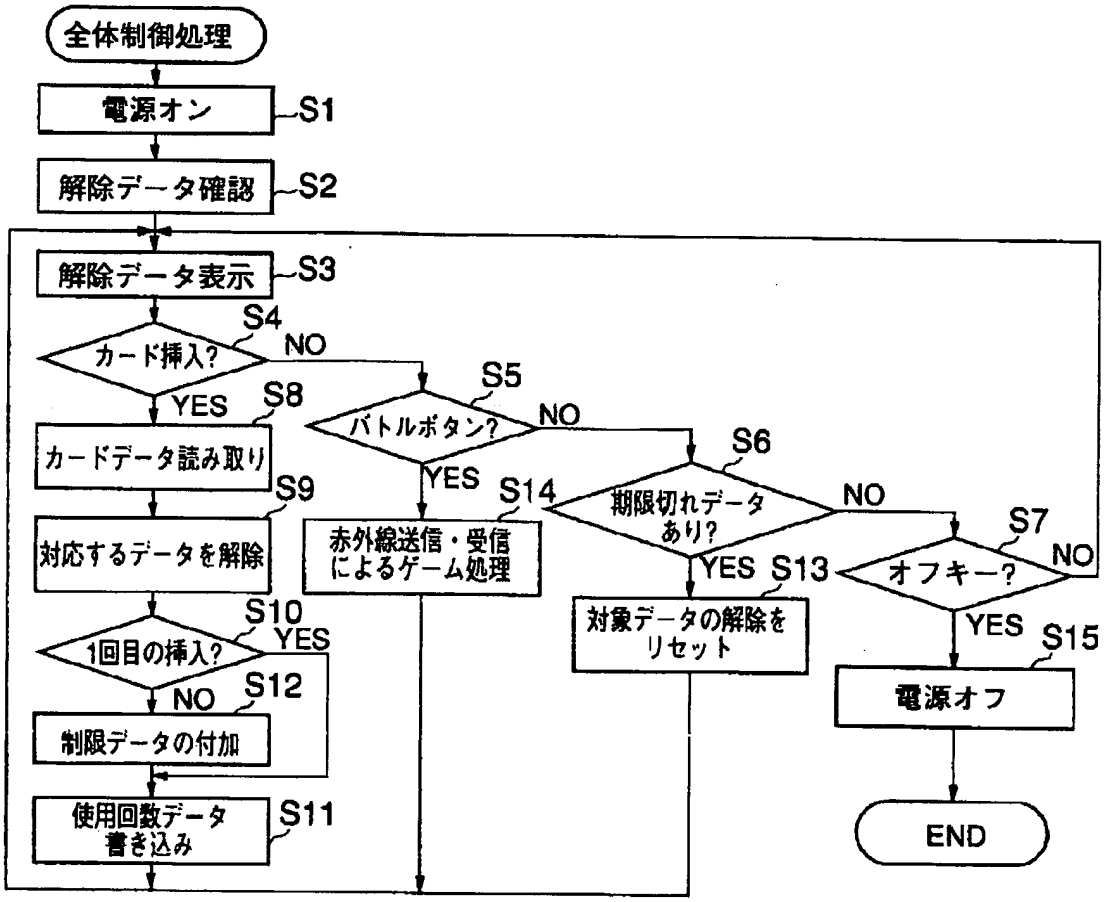
23d (キャラクタ制限テーブル)

項目 / 挿入回数	期限	パワー
1	——	100%
2	12ヵ月	50%
3	6ヵ月	20%
4	1ヵ月	10%
5≦	解除フラグリセット	

[Drawing 7]



[Drawing 6]



[Translation done.]

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